

## Montana Board of Oil and Gas Conservation Environmental Assessment

Operator: Slawson Exploration Company, Inc.  
Well Name/Number: Weasel #1-36H  
Location: NW NW Section 36 T23N R53E  
County: Richland, MT; Field (or Wildcat) Wildcat

### Air Quality

(possible concerns)

Long drilling time: No, 20-30 days drilling time.

Unusually deep drilling (high horsepower rig): Triple derrick rig to drill a single lateral horizontal Bakken Formation test, 13,772'MD/9,601'TVD.

Possible H<sub>2</sub>S gas production: Slight chance H<sub>2</sub>S gas from Mississippian Formations.

In/near Class I air quality area: No Class I air quality area in the area of review.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

- ☒ Air quality permit (AQB review)
- ☐ Gas plants/pipelines available for sour gas
- ☐ Special equipment/procedures requirements
- ☐ Other: \_\_\_\_\_

Comments: Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation test, 13,772'MD/9,601'TVD. If there is an existing pipeline for gas in the area and associated gas can be gathered or if no gathering system nearby associated gas can be flared under Board Rule 36.22.1220.

### Water Quality

(possible concerns)

Salt/oil based mud: Yes to intermediate string hole to be drilled with oil based invert drilling fluids. Horizontal lateral will be drilled with oil based invert drilling fluids. Surface casing hole will use freshwater and freshwater mud system.

High water table: No high water table anticipated.

Surface drainage leads to live water: No, closest drainage is East Red Water Creek, an ephemeral drainage, about 1/4 of a mile to the south from this location.

Water well contamination: None, closest water wells are about 5/8 of a mile to the northwest, about 3/4 of a mile to the north, about 7/8 of a mile to the northwest and all other water wells are 1 mile and further from this location. Depth of these stock/domestic water wells range from 40' to 320'. 1840' of surface casing, as listed on the permit to drill application is sufficient casing to cover the base of the Fox Hills Formation. Surface casing hole will be drilled to 1840' and run 1840' of steel surface casing and cement it to surface.

Porous/permeable soils: No, sandy clay soils.

Class I stream drainage: No, Class I stream drainages.

Mitigation:

- ☐ Lined reserve pit
- ☒ Adequate surface casing
- ☐ Berms/dykes, re-routed drainage
- ☒ Closed mud system
- ☒ Off-site disposal of solids/liquids (in approved facility)
- ☒ Other: Lined cuttings pit.

Comments: 1840' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and operational BOP equipment will prevent any problems.

### Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None anticipated, crossing only ephemeral drainages.

High erosion potential: Yes this location has a high erosion potential due to moderate fill slope, location needs a small cut, up to 0.02' and a moderate fill, up to 25.2', required.

Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large well site 450'X405', designed as a single well location for the Weasel 1-36H.

Damage to improvements: Slight, surface use is cultivated land.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☒ Other: Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be over existing state highway, #200 and county roads #127 and 317. Operator will construct about 1724' of new access road into this location from the existing county road #317. Oil based invert drilling fluids will be recycled. Completion fluids will be trucked to a Class II disposal. Operator will utilize a closed loop mud system. Cuttings and mud solids will be disposed of in the lined cuttings pit and solidified. No concerns.

## Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No residences within a 1 mile radius from this location. The town of Richey, Montana is about 10.75 miles to the southwest and the town of Lambert, Montana is about 11.25 miles to east southeast from this location.

Possibility of H2S: Slight chance H2S gas from Mississippian Formations.

Size of rig/length of drilling time: Triple drilling rig 20 to 30 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: Adequate surface casing cemented to surface with a working BOP stack should mitigate any problems.

## Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): Fox Lake State Game Management Area, about 9 miles to the east southeast from this location.

Proximity to recreation sites: Fox Lake State Game Management Area, about 9 miles to the east southeast from this location.

Creation of new access to wildlife habitat: No, none.

Conflict with game range/refuge management: No, none.

Threatened or endangered Species: Species identified as threatened or endangered are the Pallid Sturgeon, Interior Lease Tern, Whooping Crane and Piping Plover. Candidate species are the Sprague's Pipit and the Greater Sage Grouse. NH tracker website indicates zero (0)

species of concern in this area.

Mitigation:

☐ Avoidance (topographic tolerance/exception)

☒ Other agency review (DFWP, federal agencies, DSL)

☐ Screening/fencing of pits, drillsite

☐ Other: \_\_\_\_\_

Comments: Private cultivated lands. State of Montana "Trust Land" minerals, Trust Lands will do surface EA. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern are discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

### **Historical/Cultural/Paleontological**

(possible concerns)

Proximity to known sites: None identified

Mitigation

☐ avoidance (topographic tolerance, location exception)

☒ other agency review (SHPO, DSL, federal agencies)

☐ Other: \_\_\_\_\_

Comments: Private cultivated lands. State of Montana "Trust Land" minerals, Trust Lands will do surface EA. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

### **Social/Economic**

(possible concerns)

☐ Substantial effect on tax base

☐ Create demand for new governmental services

☐ Population increase or relocation

Comments: No concerns.

### **Remarks or Special Concerns for this site**

A single lateral horizontal Bakken Formation test 13,772'MD/9,601'TVD.

### **Summary: Evaluation of Impacts and Cumulative effects**

No long term impacts expected. Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/ Steven Sasaki  
(title:) Chief Field Inspector  
Date: May 30, 2012  
Other Persons Contacted:  
Bureau of Mines and Geology, GWIC website

(Name and Agency)  
Water wells in Richland County, Montana  
(subject discussed)  
May 30, 2012  
(date)

US Fish and Wildlife, Region 6 website  
(Name and Agency)  
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA  
COUNTIES, Richland County  
(subject discussed)

May 30, 2012  
(date)

Montana Natural Heritage Program Website  
(Name and Agency)  
Heritage State Rank= S1, S2, S3 T23N R53E  
(subject discussed)

May 30, 2012  
(date)

If location was inspected before permit approval:  
Inspection date: \_\_\_\_\_  
Inspector: \_\_\_\_\_  
Others present during inspection: \_\_\_\_\_